Chapter 10

Neurocognitive Implications of Tangential Speech in Patients with Focal Brain Damage

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Additional information is available at the end of the chapter

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Abstract

There are no studies on the neurocognitive implications of tangential speech (TS). This research aims to take a step forward in the study of narrative processing, by evaluating TS in a sample that helps to detect this deficit when it is neurogenic and recently manifested. The relationship between TS, secondary to focal brain injury, and neuropsychological and neuroanatomical variables was explored. A comprehensive neuropsychological battery was administered to 175 volunteers: 95 alert inpatients, without aphasia, without psychiatric history and without TS history, and 80 healthy participants, without TS. Results: TS (prevalence 16%) was independent of type or site of injury. An adverse effect of TS on global neuropsychological performance was observed. This effect was significantly related to attentional errors along with prolonged processing times but not to correct responses. Reliability and validity indices for the present TS screening scale were provided. Conclusion: Present results support the hypothesis that this neurogenic inability to spontaneously find, organize and communicate verbal information, beyond single words, depends on extended brain networks involving processes such as sustained attention, complex-syntax comprehension, the (implicit) interpretation and spontaneous recall of a narrative, and emotional and behavioral alterations. Early TS detection is advisable for prevention and treatment at any age.

Keywords: communication disorders, language disorders, disconnected speech, focal cerebral lesions, goal-directed speech, mild cognitive impairment, narrative processing, sustained attention, time of day orientation

1. Introduction

The organization of spoken language involves the selection and maintenance of the topic of the conversation (with logical sense and pertinence) according to the context and the

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